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ABSTRACT

The OPTIONS Project was undertaken at Piedmont Virginia Community College (PVCC) to identify and eliminate sex stereotyping in vocational guidance. As part of this effort, a series of workshops was held that resulted in a heightened sensitivity, on the part of counselors, to sex stereotyping and greater awareness of the problem in the college at large. Another component of the project resulted in the evaluation of career resource materials at the career library and the development of a procedure for assessing new materials as they are added to the collection. Additionally, the project sought to investigate the causes of math anxiety and explore ways of eliminating it. Efforts in this area included a one-day workshop and two seminars for counselors and instructional staff that focused on reducing math anxiety, as well as the piloting of an open math lab and the development of support materials. Finally, in order to achieve objectives related to the planning and implementation of programs and the development of materials responding to the needs of PVCC women, visits were made to model programs at other colleges, four seminars on sex bias and stereotyping were conducted for students, and career materials designed for women were purchased. The project report is appended by materials related to project activities, including questionnaires, survey results, descriptive materials, and time-tables. (AYC)

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ED186049

ANNUAL REPORT

Identification and Elimination of Sex Stereotyping and Sex Bias in Vocational Guidance and Counseling at Piedmont Virginia Community College

Other

Conducted Under
Vocational Education Amendments of 1976
Public Law 94-482

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July 20, 1979

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ABSTRACT

I. Title of Project: "OPTIONS" - A Project to Identify and Eliminate Sex Stereotyping in Vocational Guidance and Counseling at PVCC.

II. Time of Project: September 1, 1979 - June 30, 1979

III. Goals and Objectives of the Project:

1. To conduct a one-day workshop on eliminating sex stereotyping for PVCC student services staff, interested faculty, and support staff.

2. To evaluate career resource materials for sex fairness and to develop a procedure for checking new materials as they are added to the Career Library.

3. To sponsor a three-day workshop for the PVCC counseling staff and math faculty on reducing math anxiety.

4. To examine the mathematcis curricula to determine how PVCC can help women and men who are experiencing math anxiety.

5. To plan and implement programs and materials which respond to the needs of PVCC women.

IV. Procedures: The procedures for achieving each of the five objectives vary. Included are in-service training workshops for counselors, faculty and staff; the creation of an on-going system for evaluating career materials and the purchase of new materials; visitation to model programs, the development of new programs for women and a brochure informing women of PVCC opportunities available to them.

V. Results/Accomplishments: As of June 30, 1979, the following activities had been completed for each objective:

1. Objective #1, a series of workshop sessions for counselors, faculty, administration and staff were held in the Spring of 1979.

2. Objective #2, an instrument and a process of evaluating career materials was developed and an evaluation of all materials regarding specific occupations was completed.

3. Objective #3, a one-day workshop on reducing math anxiety has been conducted for the PVCC counseling staff and math faculty; and more extensive training was provided for the project director and an instructor of mathematics.

4. Objective #4, two seminars on reducing math anxiety were conducted; an open math lab piloted and materials for use with students were developed.

5. Objective #5, visitations were made to model programs at other collges and four seminars focusing upon sex bias/stereotyping were held throughout the year for students at PVCC. Career materials especially designed for women were purchased.

VI. Evaluation: The activities sponsored by this project have had positive effect upon attitudes and behaviors related to sec equity.

VII. Conclusions/Recommendations: The staff concludes that continuing commitment and exposure to materials, activities and attitudes which foster sex fairness are required if significant change in the career planning patterns of men and women is to occur.

PIEDMONT VIRGINIA COMMUNITY COLLEGE

I. Project Title

"OPTIONS" - a project to Identify and Eliminate Sex Stereotyping and Sex Bias in Vocational Guidance and Counseling at Piedmont Virginia Community College.

II. Overview of the Problem Area Addressed by the Project

Title IX of the Education Amendments of 1972 has correctly focused attention on the need to eliminate sex stereotyping and sex bias generally, and especially from career counseling and educational programs. As with many social inequities, affirmative actions are required to combat the ingrained attitudes and practices which perpetuate them.

The results of past sex stereotyping and sex bias are evident. Statistical information provided by the Sex Equality in Guidance Opportunities Project on the working woman explodes many of the myths regarding women's "proper" roles. Inequities are especially evident in the nature of the career fields chosen by women. For example, women currently comprise only 1.5 percent of the construction work force.[1] As recently as 1973, women constituted only four percent of all craft workers in the United States.[2] This pattern is also reflected in the curricula chosen by college women, which tend to be female dominated (i.e., secretarial science, allied health).[3]

Traditional problems associated with sex bias in career guidance materials still exist, as does a need to sensitize counselors and faculty to the more subtle and pervasive aspects of sex stereotyping and bias.

A specific problem, and one which has been described as a possible reason for the reluctance of women to enter male-dominated careers, is math anxiety. Ms. Sheila Tobias, Assistant Provost at Wesleyan University, has recently focused attention on this issue.[4] Many individuals, and especially women, fear taking courses in mathematics and are thus ineligible to enter many technical career fields. Tobias pioneered work in helping women deal with an overcome this problem, and is now assisting other educators in this development of similar programs.

Piedmont Virginia Community College, being committed to providing true equality of educational opportunity, supports the elimination of obstacles to achieving this goal. As the title of this project suggests, the college is committed not only to equality of educational opportunity but also to actively assisting all students in expanding options in relationship to career/life planning. To that end, the College has sponsored a Women's Week for the past two years, offered courses designed to expose women to "non-traditional" career areas, and has attempted to eliminate all sexually-unfair information from College publications. To move systematically toward providing the desired equality, the College wishes to implement the programs outlined in this proposal.

III. Project Objectives proposed in the grant application were as follows:

1. To conduct a one-day workshop for the PVCC student services staff, as well as interested faculty and support-staff, that is designed to achieve the goals of the Sex Equality in Guidance Opportunities Project.

2. To evaluate career resource materials for sex fairness and to develop a procedure for routinely checking all such materials as they are added to the Career Library.

3. To sponsor a three-day workshop for the PVCC Counseling Staff and math faculty on reducing math anxiety.

4. To examine the mathematics curricula to determine if: (a) separate special courses should be offered for women experiencing math anxiety; (b) a math anxiety reduction component should be built into all math courses.

5. To plan and implement programs and materials which respond to the needs of PVCC women as determined through an assessment procedure.

IV. Procedures Followed

In regard to Objective #1, in the Spring of 1979 a series of workshops were held for PVCC faculty, staff, administrators and students on the issue of sex stereotyping and bias. These sessions were designed and facilitated by Ms. Martha Cox, a consultant from Goodmeasure, Inc. (Mass.), and focused on the attitudes and behaviors of both majorities and minorities in groups. The goals of these workshops are detailed in Appendix A.

The counseling staff devoted three staff meetings to inservice activities which focused specifically upon bias and stereotyping in the counseling process. These activities, designed and led by Ms. Allman, "Options" project assistant, enabled the staff to assess personal attitudes and behaviors which limit the career alternatives of students.

In addition, counselors met with Ms. Cox in the spring for a workshop on coping behaviors of minorities in work groups.

In regard to Objective #2, the Office of Student Services at PVCC hired a project assistant for the duration of grant activities whose responsibilities are outlined in Appendix L. This individual, Ms. Allman, researched methods currently used to evaluate career materials, first by reviewing literature on the topic and then by visiting career planning offices at Virginia Colleges (see table).

DATE	COLLEGE/AGENCY	PROGRAMS/SERVICES EXAMINED	PERSON CONDUCTING VISITATIONS
Nov. 16	Mary Baldwin College Staunton, Virginia	Adult Degree Program Women's Career Center	Dr. J.B. Tulloch Ms. J. Allman Mrs. Susan Singhas (Staff Counselor)
Nov. 22	University of Virginia Charlottesville, Virginia	Office of Career Planning and Placement	Ms. J. Allman
Nov. 26-27	Broward Community College Ft. Lauderdale, Florida	Women's Center	Dr. J.B. Tulloch
Nov. 28	Brevard Community College Cocoa, Florida	Career Resource Center	Dr. J.B. Tulloch
Dec. 4	Northern Virginia Community College Annandale Campus Fairfax, Virginia	Career and Educational Planning Library	Ms. J. Allman
Dec. 11	J. Sargeant Reynolds Community College Richmond, Virginia	Office of Career Development	Ms. J. Allman

Table 1: Summary of Visitation to Career Resource Centers

Subsequently, Ms. Allman designed an instrument to use in evaluating those materials at PVCC which cover information on specific occupations (Appendix B). The counseling staff helped in the development of the final evaluation form; participated in staff training sessions on evaluating materials; assisted in the actual evaluation process; and made recommendations for new materials. At the conclusion of this evaluation in the spring, the project director and assistant compiled a list of materials viewed as necessary to make the Career/Life Planning Resource Center more complete and free of sex bias/stereotyping. Resources included those for the professional growth of staff members as well as those designed for student use. Ms. Allman also established a routine procedure for review and evaluation of new materials.

In regard to Objective #3, Ms. Sheila Tobias and Ms. Susan Auslander visited PVCC on November 21st and conducted a workshop on math anxiety. These consultants presented an overview of the problem of math anxiety, its implications, and solutions they have developed to help students overcome this handicap. (See Appendix C). Participating math faculty, counselors, administrators and students rated the workshop positively, most frequently describing it as enjoyable, instructive and pleasant (See Appendix D). In addition to this workshop, the Project Director, a math instructor, and the Dean of Instruction attended a one-day conference and training session featuring these consultants on the topic of math anxiety in Washington, D.C. on January 15, 1979.

Because workshop and conference activities responded sufficiently to the needs of PVCC faculty and counselors for information and training in the area of math anxiety, plans for more intensive workshop were not pursued.

In regard to objective #4, the Project Director and a member of the math faculty developed a pilot Math Anxiety Seminar for the Winter academic quarter. The two credit hour course entitled Math 199 was extensively publicized prior to the registration period in early January. This included a mailer/flier (See Appendix E), newspaper ads (See Appendix F), and a presentation by Ms. Tobias and the PVCC Dean of Student Services on a local TV program. Nine students enrolled in the seminar with six remaining at the close of the quarter. This seminar has been offered each quarter (spring and summer, 1979) since its inception. The Project Director also surveyed math faculty, counselors and administrators to determine their perceptions of students needs related to math anxiety and responses that might be made by PVCC. The majority of those surveyed indicated they thought many students suffered from math anxiety and that an open lab, a special math anxiety course, and/or an anxiety reduction component in the regular math courses might alleviate this problem (See Appendix D).

In response to these perceptions, members of the math faculty and counseling staff team staffed an "Open to Everybody" Math Lab during Spring Quarter, 1979. Students experiencing difficulty with the content of math courses, with attitudes toward math or those who wished an assessment of skills were encouraged to seek help through the lab. A flier was used to publicize this effort (Appendix H).

The Project Direct and Ms. Willis, a member of the math faculty, also compiled the resources and exercises used in the "Options" project and have shared them with other math instructors and counselors at PVCC and across the state. A summary of program goals and activities is contained in Appendix G. The manual produced by the Project Director and Ms. Willis is listed in Appendix N.

In regard to Objective #5, during the Fall and Winter of 1978-79 the Project Director and assistant explored new program possibilities through attendance at workshops and visitations to model programs at other colleges (Appendix I). During the academic year, the project assistant, the project director and a female staff counselor conducted a total of 4 credit seminars/workshops for PVCC women and men focusing upon sex roles and the career/life planning process. They were as follows:

Fall, 1978	For Women Returning to School
Winter, 1979	Exploring Your Options: A Look at Traditional and Non-traditional Careers
	Changing Roles for Women
Spring, 1979	Examining Career Options

Further explanation of these courses is contained in Appendix J. At the conclusion of each seminar participants were surveyed in an effort to identify further the needs of women students.

A brochure describing the college's responses to the needs of women has been discussed and a basic design developed. Because this brochure shall include program responses from both instruction and student services, completion is contigent upon further planning with the Dean of Instruction.

V. Results/Accomplishments

In regard to A. Increasing Awareness of Sex Bias/Stereotyping:

Although significant changes in behavior are difficult at best, counseling staff members began the process of recognizing and challenging sexism through in-service training sessions and workshops. The heightened sensitivity toward sex bias/stereotyping in career materials and activities displayed by counselors during the evaluation of career resources is the most specific example of positive results.

The college community in general appears to be more aware of sex bias/stereotyping in attitudes and behaviors. Evidence of this stems from positive responses to the "Options" newsletter (Appendix K); willingness to assist in publicizing project activities and attendance at the workshop sponsored during the spring. Faculty and support staff willingly served as members of the Advisory Committee formed in January to lend advice and support in meeting project goals.

In addition, the college has provided support for the continuation of these activities for the coming year. Funds have been made available for a study currently underway by a PVCC faculty member to examine instructional materials for sex bias/stereotyping. Institutional funds will also support a workshop session on bias and stereotyping in the classroom during the Fall '79 faculty planning period.

In regard to B. Sex Fairness in Career Materials

All career materials currently located in the Career/Life Planning Resource Center at PVCC have been evaluated for sex, race and age bias/stereotyping using the form designated as Appendix B. This task proved to be a formitable one, involving a great deal of preliminary research and inservice training, but yielding important results. In addition to increasing counselor awareness, the evaluation form, which is attached to each resource, serves as an instructional tool with students, encouraging them to be aware of bias and stereotyping and of career planning as a process. In addition, it is notable that sharing the evaluation process and findings with the Options Advisory Committee members served as the direct stimulus for the study of instructional materials currently being conducted by a faculty member.

A routine procedure for evaluating new materials has also been designed and implemented. This procedure will promote a continuing effort to maintain sex equity in career materials.

C. Math Anxiety/Avoidance

Through project activities, both counselors and math faculty at PVCC have made progress toward identifying and responding to present and potential students who are anxious about math and who may eliminate career alternatives in an effort to avoid contact with it. Students who enrolled in the Math Anxiety Seminar described it as a positive experience which helped them become more confortable approaching math. They also recommended this course to others. A summary of class evaluations is contained in Appendix M.

Other accomplishments included the initiation of an open lab math during the spring and desimination of material for use by faculty and staff in working individually with students. (Appendix N: Math 99 manual)

While ideally students should continue to have a variety of alternatives available to assist them in dealing with discomfort regarding math, staff size may limit the type of responses offered in the future. It is, however, the opinion of both counselors and math faculty that sensitivity to the problem of math anxiety and basic skills in initial responses to students are important results of project activities.

D. Programming for Women

The project activities designed to respond to the needs of women included the four seminars discussed previously, as well as the inclusion of career resource materials directed toward this population. All seminars were well attended and given positive evaluations by participants. Comments on evaluations reinforce the belief of the project staff that such courses are a vital means of increasing awareness and effecting the life/career planning patterns of women.

To that end, the counseling staff has incorporated the following efforts into planning for 1979-80:

- 1½ hour evening sessions on: Gender, Color and Jobs & Men's Lives (Fall)
- Workshop for Women Returning to School (Fall)
- Seminar on non-traditional careers (Winter)
- Leadership skills for women (Spring, 1980)

In addition, through the College Work Study Program a mature woman has been trained in the use of the Career/Life Planning Resource Center and will serve as an assistant in implementing women's activities.

E. Summary Evaluation

The tasks of the "options" project have been largely accomplished at the writing of this report, as evident in the sections on procedures and results. Specific steps were taken to complete an evaluation of career materials, initiate a program for the math anxious and provide programs to assist students, faculty, administrators and staff to examine and challenge the impact of sex bias/stereotyping on career and personal development.

Although no formal evaluation of the "total" project was done, individual activities sponsored by the project, such as those described in the previous sections of this report, were well attended and evaluated positively by participants as noted in the related appendices.

Commitments already made by the college which support efforts toward sex equity, regardless of future special funding, are an important indication of the positive impact of "Options." These include the current study of textbooks, a fall workshop on bias in the classroom, time for math faculty to work on math anxiety and the support of a math lab.

F. Conclusions/Recommendations

The process of eliminating sex bias/stereotyping is one which will require a continuing commitment by PVCC counselors and faculty and constant exposure to materials, activities, and attitudes which reinforce sex fairness. The activities completed during this project, as well as those currently underway but inspired by the project, have reduced sex stereotyping/bias in career guidance activities at PVCC and had an impact upon the college community. Such a continuing and concerted effort would not have been possible without the funding made available through the project and the heavy commitment in both time and energy of the director and "Options" assistant.

It is the opinion of the project director and assistant that while efforts to communicate and, in effect, sell activities which promote sex fairness are difficult to develop, they are important to the success of any project. The understanding of "Options" goals and support for activities was more broadly based after the project established an identity ("Options"), a channel for communication (Newsletter Appendix K), and an advisory committee of faculty, students and support staff. It is the regret of the project staff that these efforts took place three months after this project began. Such activities will be an initial part of any future project.

Finally, it is the recommendation of the project director that those persons responsible for determining budget work dilligently toward re-establishing guidelines that permit the short term employment of project staff members (such as the assistant employed under "Options") rather than allow only the use of professional consultant. In doing so the granting agency will not only encourage proposals that reflect an year long effort but encourage institutions with limited full time staff to submit proposals.

FOOTNOTES

[1] Emily Leedy, "The Needs of Women in Employment," Address given at Write Conference on Women, Dayton, Ohio, November 12, 1977.

[2] U.S. Department of Labor, Steps to Opening the Skilled Trades to Women. Employment Standards Administration Bureau. (Washington, D.C., U.S. Government Printing Office, 1974).

[3] Louise McCants, "Breaking the Barrier: Women in the Technologies." Community College Review, 1978, 8,5 (4), 4-10.

[4] Sheila Tobis, "Math Anxiety" Ms. Magazine, 1977. Sheila Tobias and Bonnie Donady, "Counseling the Math Anxious" Journal of the National Association of Women Deans, Administrators, and Counselors, 1977, 41 (1), 13-16.

APPENDIX A

MAY 30, 1979

WORKSHOPS ON SEX BIAS AND STEREOTYPING
GOALS

General Goals (all participants)

To increase the level of awareness regarding the nature and effects of stereotyping and bias.

To encourage people to examine their own behaviors and attitudes and how these may limit the options of others.

Luncheon/Workshop Goals

To assist people in identifying ways they limit their own opportunities and those of other people because of sex-role stereotypes.

To enable the group to identify at least two strategies which could be implemented in this community college to promote the awareness of sex-role stereotyping and its limiting effect on women's and men's options.

To enable the group to identify at least two strategies which could be implemented in this community college to remediate the effects of sex-role stereotyping.

Options Evaluation Goals

To assist the Options staff in critiquing the goals of the project and the activities undertaken to reach these goals.

To generate recommendation for improving the "Options" efforts.

options

FEDERALLY FUNDED VOCATIONAL EDUCATION PROJECT

Piedmont Virginia Community College Rt. 6, Box 1A Charlottesville, Va. 22901 (804)977-3900

EVALUATION

___Sex-biased ___ Age-biased ___ Race-biased

Explanation:

Or ___Free of any bias

This material has been found to be lacking in the following areas: (Note: I-inadequate, O-Omitted)	I	O
1. An explanation of the tasks and activities of people working in this occupation.		
2. A description of the work setting or environment.		
3. Information on training, education, or previous work experience required for entry into this occupation.		
4. Information on beginning salaries and earning potential.		
5. Information on opportunities for promotion/advancement.		
6. A description of the life style required in this occupation.		
7. A listing of organizations associated with this occupation (i.e. labor unions, professional organizations, etc.		
8. A description of future possibilities for jobs in this field.		
9. Recommendations for places to look for more information about this job.		

Suggestions for further research include:

1. Interviewing a person currently working in this field.
2. Following a person currently working in this field through one day of his/her work activities. At PVCC, see a counselor for help in arranging this experience.
3. A Co-operative education program. At PVCC, contact the Co-op office.
4. Volunteer work in this field. At PVCC, see a counselor.
5. Other books and audio-visual material located in the PVCC Career and Personal Assessment Center.

Specifically:

6. Other _____

Evaluator's Signature _____ Date _____

PIEDMONT VIRGINIA COMMUNITY COLLEGE

- OVERCOMING MATH ANXIETY -
CONSULTING AND TRAINING PROGRAM

November 21, 1978

CONSULTANTS: Ms. Shiela Tobias
Ms. Susan Auslander

12 noon - 2 p.m. - Luncheon briefing on Piedmont Virginia Community College Students, faculty, and mathematics education
Sheraton Motel

Ms. Joanna Allman	Dr. Robert Templin
Ms. Susan Auslander	Ms. Sheila Tobias
Dean Charles Dassance	Dr. Jacquelyn Tulloch
Dean P. J. Jenkins	Dr. George Vaughn
Mr. Richard Search	Ms. Margaret Willis

2:30 - 3:30 p.m. Overview presentation to College faculty:
Room 132 "Math Anxiety and Math Avoidance -- The Problem and the Solutions" Ms. Tobias

3:30 - 5:30 p.m. Small group consultation with Math Faculty and Counselors
Ms. Auslander
Ms. Tobias

5:30 - 7:30 p.m. Dinner meeting on future plans for PVCC Math Clinic and possible statewide workshop-training program
That Seafood Place

Ms. Allman	Dr. Templin
Ms. Auslander	Ms. Tobias
Dean Dassance	Dr. Tulloch
Mr. Search	Ms. Willis

PVCC Math Anxiety Workshop
Evaluation Form
Summary

14 Responses
4 Math Faculty
4 Administrators
4 Counselors
2 Students

1. Check the appropriate box

	Very High	High	Average	Low	Very Low
GROUP INTEREST	1	7	5		
MY OWN INTEREST	2	8	2	1	
USEFULNESS OF SESSION	2	4	6	1*	
EFFECTIVENESS OF LEADER	3	3	5	1	

*Susan Auslander

2. Circle the adjectives that describe the workshop/presentation

Academic	Monotonous (1)	Thought Provoking (4)
Enjoyable (10)	Relevant (4)	Enlightening (4)
Challenging	Uninformative	Instructive (8)
Slow (2)	Pleasant (7)	Frustrating (4)
Valuable (3)	Practical (2)	Confusing
Rambling (5)	Tense (1 - at times)	*Long*

3. The most valuable part of the session was:

See attachment #1

4. Do you think students that you have contact with experience math anxiety?

____ none
____ few
9 many (2 students)
____ do not know

*Similar to earlier session attended

5. If you believe that some students experience math anxiety, in which of the following ways do you think PVCC might respond?

5 Offer separate math anxiety seminar or course

5 Build math anxiety reduction component into math classes

5 Provide an open lab with a counselor and instructor

_____ I do not know

**May need to experiment with different approaches to determine best approaches*

***The problem seems to be attracting students to new situations that are intended to be helpful to them. I am almost as interested in the why of this very factor (lack of student response) as I am about anxiety itself... for interested individuals (faculty) to develop sensitivity to situations in which anxiety arises and respond to it on-the-spot. This means developing a skill of deflecting or diffusing a situation of growing tension.*

6. Would you be interested in working with a (counselor - instructor) in the areas of math anxiety?

9 yes

1 no

2 I do not know at this time (Please explain what information or skills you would need to help you decide). *(Students)*

ATTACHMENT # 1

- Question and answer
- General discussion
- Outside experts to make presentations getting math faculty interested
- Interaction between leader and group
- Sheila Tobias' presentation
- Reaction of participants
- Discussion following group effort at solving a problem - approaches and reactions
- The enlightenment and its consequential understanding of my own personal math anxiety
- Specific exercises and processing feelings
- Exercise to demonstrate amount of anxiety
- Hard to say, perhaps counselor and math faculty together to look at our idea
- Reinforce the confidence that you are capable of handling math since I had passed a math course before
- Exercise demonstrating that many participants experienced math anxiety and allowing participants to analyse reactions to math

APPENDIXES E AND F WERE DELETED DUE TO IRREPRODUCIBILITY

BOTH WERE SAMPLES OF FLIERS ANNOUNCING THE MATH ANXIETY SEMINAR

"OPTIONS" MATH ANXIETY PROGRAM DESCRIPTION

Overview of PVCC activities

A. Who we are, how we see the problem and how we got involved
B. Goals for Math Anxiety Program at PVCC
   1. Assist students in identifying their feelings about math
   2. Help students gain insights into their attitudes, feelings, and beliefs about math (i.e., where and how they acquired these)
   3. Provide the students with opportunities and support for challenging the beliefs and attitudes which block learning math
   4. Assist students in reducing the impact of these beliefs and replacing them with those thoughts and feelings which support learning mathematics

Strategies Employed in the Program

To identify feelings

- structured exercises such as incomplete sentences
- math problems
- testing situations
- "math" log

To gain insights into thoughts, feelings

- exercises such as math autobiography
- open discussion
- completion of survey questions
- math log

To challenge blocking attitudes, feelings

- "ABC" model for understanding emotions
- Bill of Rights for math anxious
- math problems (processing)
- use of newspaper articles and situations from Math Encounter Log

To reduce impact of "blocks" and provide for development of beliefs which support learning

- exercise such a Bill of Rights, Helpers
- presentation on learning styles
- "Math and Careers"
- development of class project and evaluation

Overview of desirable behaviors for students and instructors

Looking Ahead

A. Evaluation of our activities

   1. positive results
   2. problems encountered
   3. other options for programs
      a. open lab
      b. in class
      c. "group"

B. Some future plans

- involvement of others
- funding

APPENDIX H HAS BEEN DELETED DUE TO IRREPRODUCIBILITY

IT CONTAINED A FLIER ANNOUNCING
THE OPEN-TO-EVERYBODY-MATH-LAB

APPENDIX I

ACTIVITIES UNDERTAKEN TO DEVELOP PROGRAMS FOR WOMEN STUDENTS

DATE	TYPE OF ACTIVITITY	DESCRIPTION	PERSON ATTENDING
Nov. 16	Workshop	Women and Careers: Planning for the Future Carol Eliason, presentor	Tulloch Allman Singhas
Nov. 26-27	Site visit	Broward CC's Womens Center: Career Development Course	Tulloch
Nov. 28	Site visit	Brevard CC Wendi Program WOW Program	Tulloch
Mar. 2	Site visit	Orange C.C. - Womens Center	Tulloch
Apr. 4	Conference	National Association of Women Deans, Counselors and Administrators	Tulloch Allman

APPENDIX J

COURSES SPONSORED BY OPTIONS 1978-79

Fall, 1978

FOR WOMEN RETURNING TO COLLEGE. This seminar will focus upon the issues and concerns of women who have been away from the academic world for a number of years and who are returning. Topics will include: establishing priorities and budgeting time; study tips; services available for me; dealing with anxiety about my academic performance and examining some career options.
Format: Six - 1½ hour sessions.

Winter, 1979

EXPLORING YOUR OPTIONS: A LOOK AT TRADITIONAL AND NON-TRADITIONAL CAREERS. Have you ever wondered about the relationship between one's sex and the job market? Participants in this course will explore how one's sex affects career decisions and work experiences. The class will be organized around structured activities, media (films, slides and tapes) and in class interviews with workers from the community. Attendance at all 6 sessions required.

CHANGING ROLES FOR WOMEN. Participants should dress confortably and bring a bag lunch to this all day workshop examining the tipic "Being a Woman." Four edited films (A Doll's House, Tell Me Where It Hurts, A Brand New Life, and I Love You, Goodbye) will be shown during the day with each followed by a time for reaction, discussion and exploration.

Spring, 1979

EXAMINING CAREER OPTIONS. If you are a housewife looking for an entry point into the world of work or a seasoned careerist considering occupational change, this class should help. Participants will examine their predominant decision-making style, their work values and interests, and their current marketable skills. Three to four hours of out-of-class job market research will be expected. Attendance at all six sessions required.

Summer, 1979

CAREER ALTERNATIVES: A CLOSER LOOK. This one-day seminar will offer a unique opportunity to examine first-hand career options in the technical fields and "hard sciences." PVCC faculty will provide participants with career information and hands-on experience in the following areas: Automotive/Mechanical, Drafting and Design, Electronics, Computer Science, and Laboratory Sciences. In addition, counselors will lead discussions on the career decision-making process.

APPENDIX K HAS BEEN DELETED DUE TO IRREPRODUCIBILITY - IT CONTAINED THE OPTIONS NEWSLETTER FOR APRIL 20, 1979

APPENDIX L

PIEDMONT VIRGINIA COMMUNITY COLLEGE - DIVISION OF STUDENT SERVICES

POSITION TITLE:	Project Assistant
SUPERVISOR:	Coordinator of Counseling Services (Project Director)
NATURE OF POSITION:	A restricted appointmen, funded through a Vocational Education Grant
CONTRACT PERIOD:	Contract to run from November 1, 1978 through June 30, 1979. During this period, the Project Assistant will work 20 hours per week for 32 weeks two evenings of work per week will be part of the 20 hour expectation; the hours worked will be determined by the Project Director.
SALARY:	$4,500; Fringe benefits are not included; appropriate taxes will be withheld.

POSITION DESCRIPTION

1. To evaluate all currently owned career materials using a set of criteria to include sex fairness.
2. To prepare a system for re-organizing career and academic choice materials housed in the career library.
3. To implement a system for routinely evaluating all materials proposed for addition to the career library.
4. To recommend career materials which promote consideration of non-traditional career options for students.
5. To update and add to local career and employment information (i.e., career resource file, career fair, etc.)
6. To assist in conducting local research on the career information needs of students.
7. To develop an information source designed to apprise women of services and activities offered by the college.
8. To maintain an on-going dialog with the student development staff regarding activities related to this project.
9. To assist the Project Director in the overall administration of the project.

APPENDIX M

Math 199: Summary of Course Evaluations

1. Do you feel that your skills in math have improved? Why or why not?
   Yes. The work we did here helped me understand that my previous math courses are still a part of my knowlege.
   Yes. In some cases review was needed. A combination of book and instructor aid and my own willingness to learn.
   My feeling toward math has improved but I need more skills.
   Yes. I believe I have a greater understanding of what I'm doing incorrectly.
   I have learned to overcome my math anxiety. I have been trying instead of letting someone else do it.

2. This course was attempting to be a "different" math course. Do you think it was?
   Yes. It was informal and a comfortable setting.
   Yes, because my feelings about math were discussed and considered.
   No, but I feel more relaxed.
   Yes, attitudes were discussed.
   Yes, its like math and psychology.

3. Do you feel you have a better grasp on reading math now than when you started this course?
   Yes, reinforced previous learning.
   Yes, definitions explained; i.e., equal, of
   Yes. I will stop to solve a math problem. Before I would just avoid if possible.
   Yes.
   Yes.

4. Do you feel your attitude toward math is different?
   Like it the same, but I understand what I need to bring to math class.
   Like it more. Bad feelings were discussed - with that out of my system, I felt learning was possible.
   Like it more. I feel this is something I need. And I must continue to put my mind for using it as much as possible.
   Like it the same. I never disliked it, just couldn't learn it fast enough and became very frustrated.
   Like it the same. I will never like math, but I will do it now.

5. Do you feel your confidence in learning math is different now than when you started?
   More, because I realized the previous math is still with me.
   More, because I have understood random problems.
   Less. Now I will try working problems.
   More. I have new insights.
   More. I think I can do it now.

6. How do you feel about the course format?
   Liked it.
   Liked it. Would like to set aside more time for math problems - discussing personal problems was goo, but sometimes we dwelled too much on them - came to feel, "O.K., that was then and this is now - let's get on with it!"
   Would change it by having more math problems (homework).
   Would change it by having a little more math and testing - then discussion helps identify areas of difficulty.
   Would change it by having more math problems.

7. How do you feel about the teaching? Best thing? Worst thing?
   Excellent. Relaxed, cordial, trusting, and respecting. Tuesday and Thursday very long days for me.
   Excellent. Patience and objectivity.
   Was very effective and understanding. Talking - feeling at ease with everyone. Still cannot get as many correct as I would like to.
   Good. All problems were discussed in detail. The first few classes were very draining - getting in touch with true math feelings.
   They were great teachers. They listened to everyone.

8. What are your feelings about word problems now?
   Better.
   Better, but still need more work.
   I am still having problems but knowing I can receive assistance, I feel less nervous.
   Still have problems but will learn to overcome them.
   They are not as hard as I make them.

9. Did you feel you received enough individual help in the class?
   Yes.
   Yes; outside class help was available when I wanted it too.
   Yes.
   Yes.
   The class was more of a group thing.

10. Do you think you were anxious about math at the beginning of the course? Are you anxious about math now? To what extent?
    Yes. Yes. Still have fears but feel I can cope with them.
    Yes. No.
    Yes. Yes, somewhat but not as much as the first week here.
    Yes. No. I know I will be able to do it.
    Yes. Because I was having so many problems with my math teacher and algebra.

11. Do you think you will be more comfortable doing math now than you were before you took this class? Because?
    Yes, because I won't throw in the towel.
    Yes. I have confidence I can do it now - old excuses not relevant.
    Yes. I have talked and have been involved with people who have some of the same feelings I have experienced.
    Yes. I understood why I was getting frustrated and what I was doing.
    Yes. I know if I really want to do math I can!

12. If your friends asked you about this math class, what would you tell them?
    Very enriching experience.
    This is a good way to find out if you have math anxiety from problems of your past. If your problems still exist, you will find you are not alone - which is an enormous help.
    If you feel as I did, this class will help you ease the nervousness that develops when taking a test.
    How much I learned about my learning habits and how to improve them. A good class for identifying learning difficulties.
    It wasn't what I expected but I am a little more comfortable about math.

APPENDIX N

"OPTIONS" PROJECT MATERIALS

1. MATH 199: A Seminar Dealing with Math Anxiety and Avoidance (booklet/manual - 16 pages).

2. Checklist for evaluating career materials (2 page memorandum)

Copies of these items along with publicity materials such as the "Options" Newsletter and course fliers are available upon written request to the project director.

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